Headquarters U.S. Air Force

Integrity - Service - Excellence

Explosive Ordnance Disposal

CMSgt John D. Olive

EOD Career Field Manager

U.S. AIR FORCE

U.S. AIR FORCE

Overview

- Mission Definition
- AF EOD Mission Areas
- Training
- Manning
- VIP Support
- Operations
- Current Programs/Equipment

Mission

- **Explosive Ordnance Disposal**

"Performs, supervises, and manages explosive ordnance disposal (EOD) operations. Locates, identifies, disarms, neutralizes, recovers, and disposes of hazardous explosives; conventional, chemical, biological, incendiary, and nuclear ordnance; and criminal or terrorist devices." AFMAN 36-2108

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AF EOD Mission Areas

Primary:

- **Aerospace Vehicle (Launch & Recovery Operations)**
- **Force Protection**
- **Weapons of Mass Destruction (WMD)**
- **Nuclear Accident/Incident Response**
- **Unexploded Ordnance (UXO) Recovery Ops**
- **Active Range Clearance (ARC)**
- **Mortuary Services**
- **Federal & Civilian Authority Support**
- **Base Populace Training**

Other:

- **Joint POW/MIA Accounting Command (JPAC) Missions**
- **Intelligence Gathering/Post Blast**
- **Black Projects**
- **Research & Development**

Training
Outside Agency Training

- Training in Explosive-Related Areas
  - Bomb Threat Search Techniques
    - Military Working Dog
    - Vehicle Search Procedures
  - Explosives Effects Demonstration
  - Explosive Ordnance Reconnaissance
    - IED/UXO
  - Aircraft Battle Damage Repair
  - Bomb Removal
  - Postal and School Bomb Threat Briefings
  - Pyrotechnics Certification
  - Range Safety Briefings
  - Fire Munitions Hazards Familiarization

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Training In-House Requirements

- CFETP Core Task Items
  - Over 350 Line Items (Annual or Semi-Annual)
    - U.S. and Foreign Munitions
    - Locally Supported Weapon Systems
    - Maintain Technical Data on Thousands
  - Monthly Demolition Qualification
  - Assigned Equipment
  - Quarterly Practical Exercises
    - Full Spectrum Threat Response
    - IED
    - WMD
    - Conventional
    - Chemical
    - Broken Arrow
    - Aircraft Response

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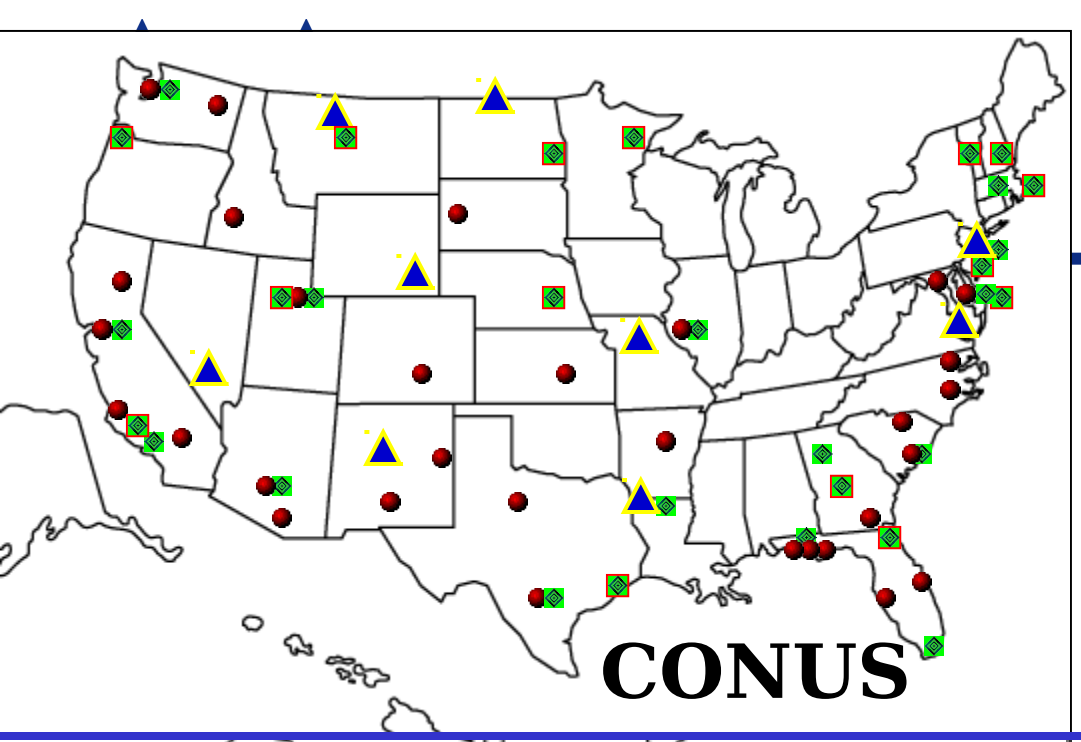
Training

Advanced Courses

- **EOD Advanced Training Requirements:**
  - **Advanced IED Defeat (NAVSCOLEOD)**
  - **Counter Radio Controlled IED Electronic Warfare (CREW)**
  - **Joint Nuclear (Sandia Labs)**
  - **Post Blast Course (ATF/FBI)**
  - **.50 CAL BARRET**
  - **ARTS/REMOTEC Maintenance/Operator**
  - **Joint EOD Response Vehicle (JERV)**
  - **Vendor Provided A-IED**
  - **Combat Skill Training (CST)**
  - **Global Ant-Terrorism and Operations Readiness (GATOR)**
  - **EAGLE FLAG (4F9X1)**

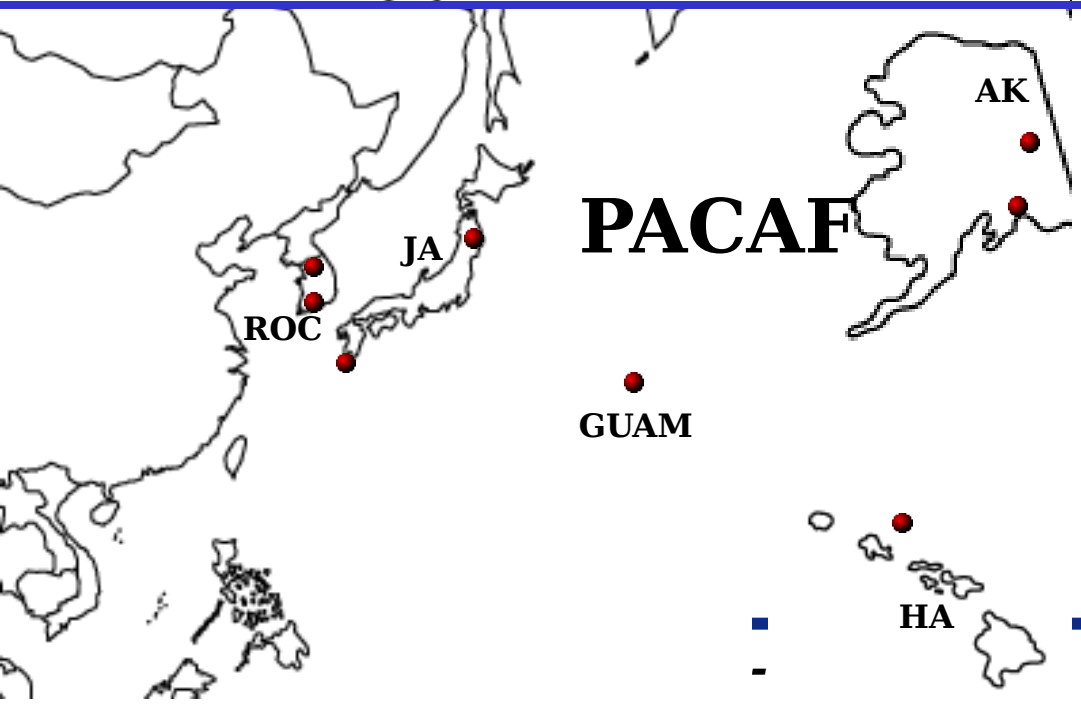


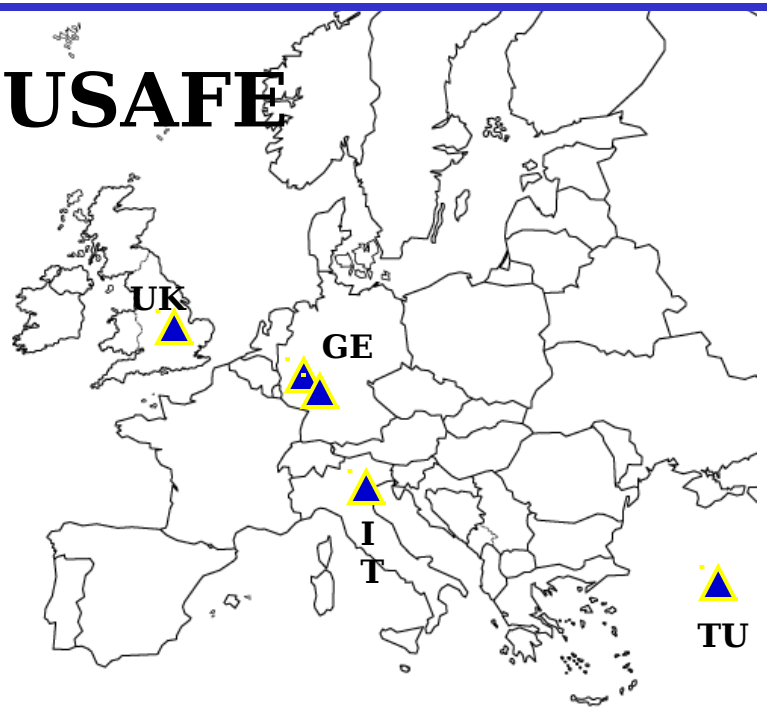
Active Duty

- 14 Direct Suppor
- 39 Indirect Suppo

ARC

- 15 AFRC
- 15 ANG





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Manpower – Active Duty Current Manning

16-Nov-06	PERM PARTY AUTH	PERM PARTY ASGN	%
GRADE			
AMN	201	115	57%
SRA	262	352	134%
SSG	338	336	99%
TSG	161	174	108%
MSG	134	86	64%
SMS	36	22	62%
CMS	11	11	100%
TOTAL	1131	1085	96%

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Manpower - Maintenance

Force Structure “Maintenance”

- Selective Reenlistment Bonus (Effective Jun 06)
  - Zone A = 3, B = 3.5 , C = 1
- Initial Assession Bonus
  - 4 yr = $4K, 6 yr = $10K
- No re-trainees over E-5
  - Technical career field requires *“Experienced EOD SNCOs”:* ARC has now agreed to follow same rules
- SNCO Initiatives
  - Critical Skills Retention Bonus (CSRB)
  - Targeted Promotions

JOINT-SERVICES EOD VIP SUPPORT

Authority: DOD Directive 3025.13,

DOD Instruction 5030.34,

OPLAN for VIP Support

Requested by U.S. Secret Service and Department of State

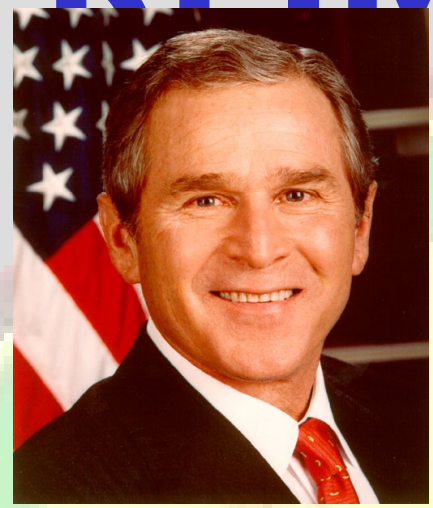
USJFCOM designated as Operating Agent

Management delegated to FORSCOM

VIP Protective Support Activity (VIPPSA)

VIPPSA Tasks and Coordinates VIP Support Missions

NON-REIMBURSABLE



The President (POTUS)

The Vice-President (VPOTUS)

REIMBURSABLE

Secretary of State

First Lady (FLOTUS)

Secretary of Treasury

Visiting Foreign Heads of State

Major Presidential Candidates (election years)

Other Dignitaries directed by USSS and DOS

OTHER SUPPORT

White House, Washington, D.C. (OEOB)

Major Events
(UN, Olympics, DNC, RNC, UNGA, etc…)

- **2006 UN General Assembly 61- 106 teams**

Camp David, Maryland

President’s Ranch, Crawford, Texas

VP’s Private Residence, Jackson Hole,

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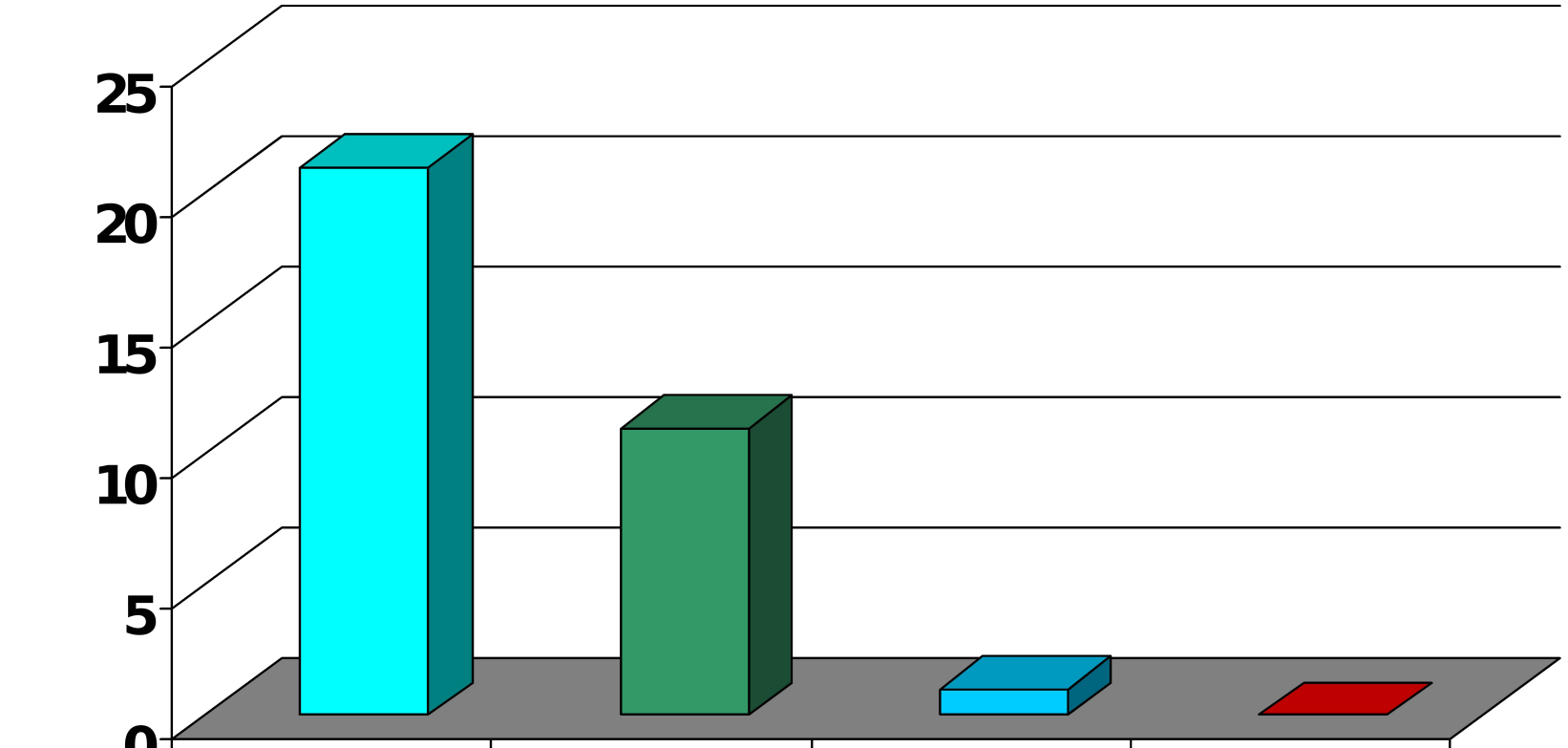
FY06 White House Complex Support



	USAF	USA	USN	USMC
Teams	21	11	1	0

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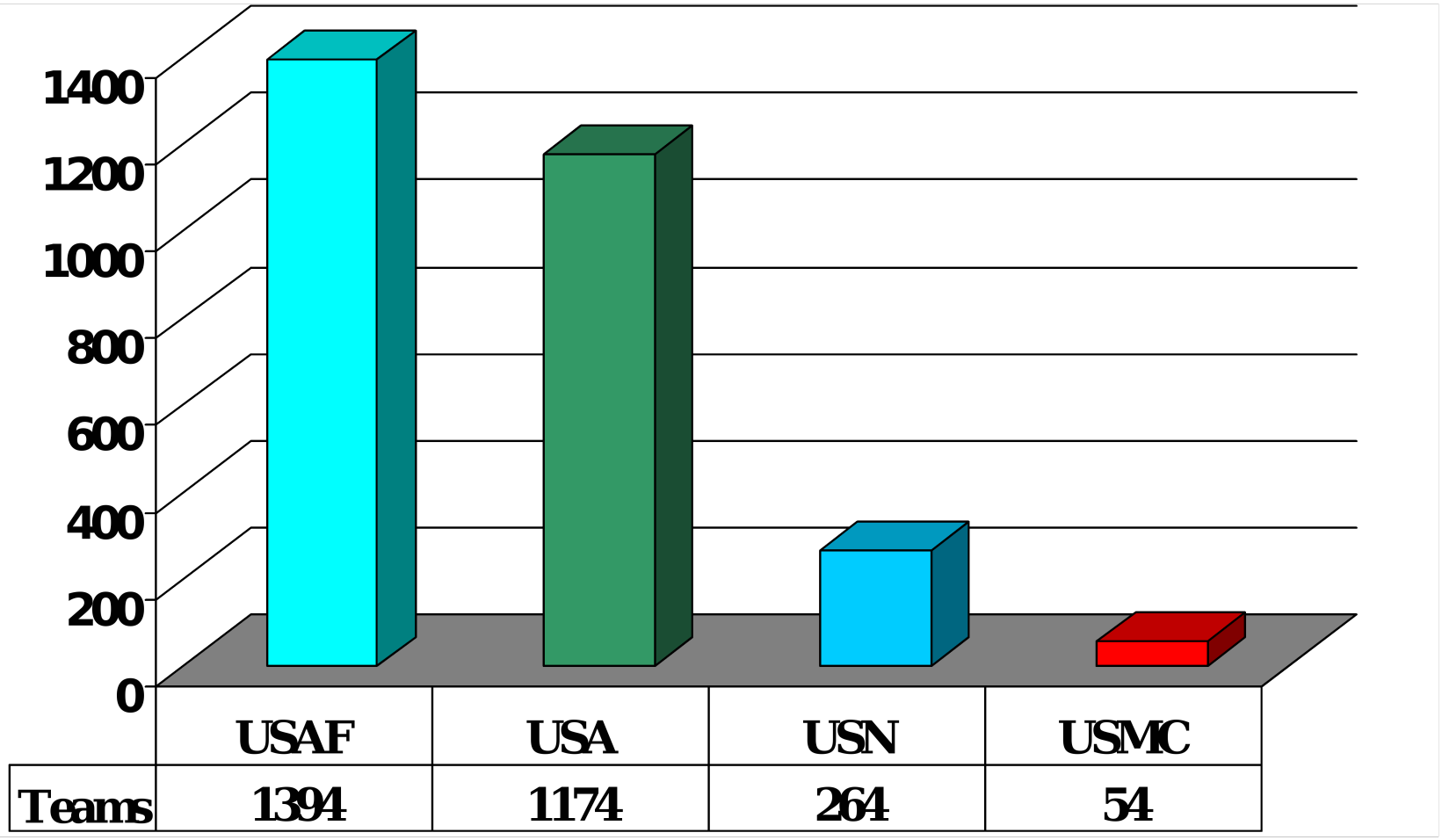
FY06 VIPPSA DOD Support



	USAF	USA	USN	USMC
Teams	1394	1174	264	54

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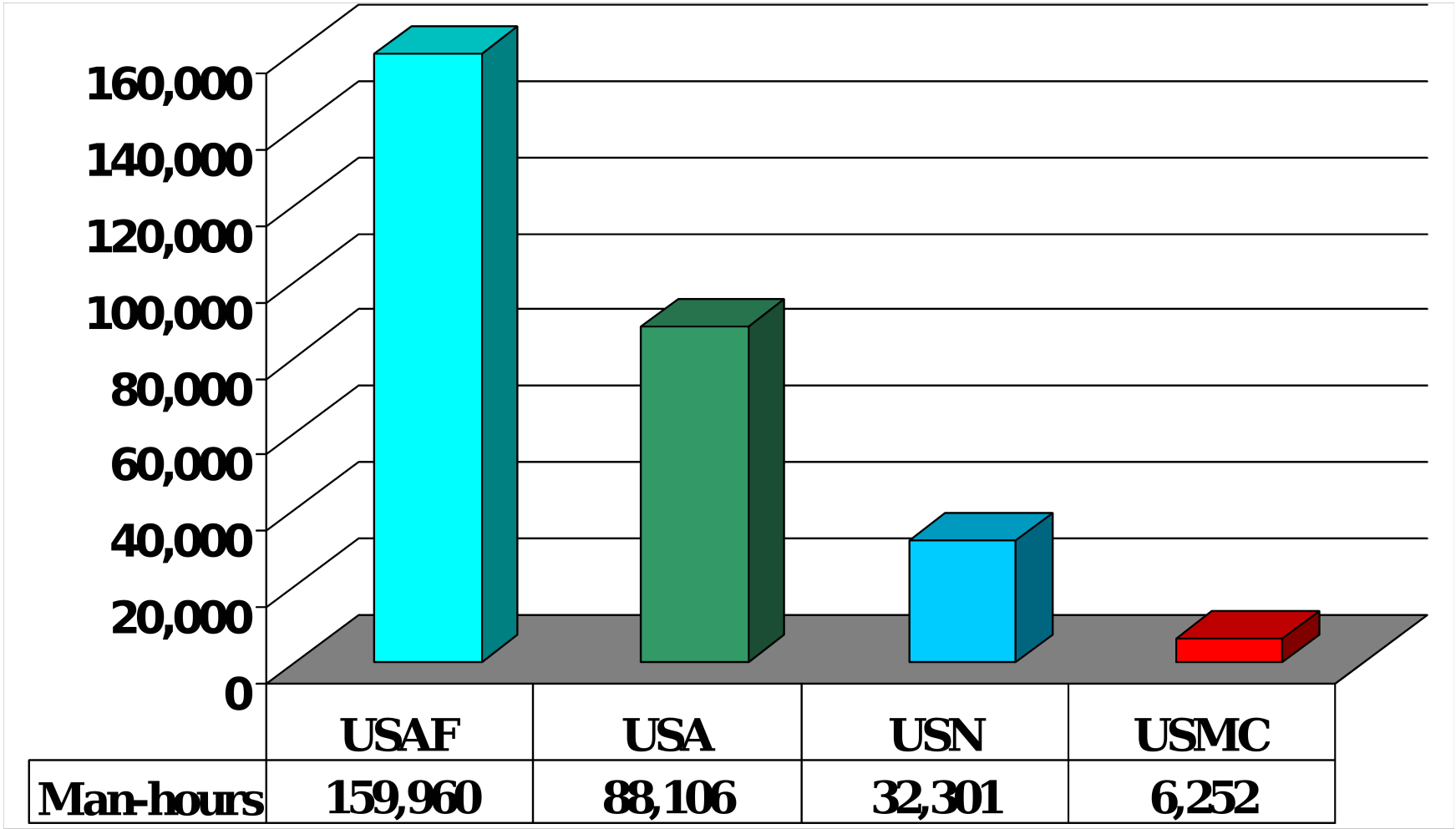
FY06 VIPPSA DOD Support Man-hours



	USAF	USA	USN	USMC
Man-hours	159,960	88,106	32,301	6,252

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Operations

- Operations Tempo Overview
- Joint Service Capability
- Incident Category Codes
  - A, B, C, and D
- Types of Incidents
  - Aircraft Recovery
  - Munitions Incidents
  - IED
  - Nuclear/Hazmat/WMD
- Pit Falls

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OIF/OEF OPSTEMPO

- **Summary of Operations from Jan – Dec 06**
  - **7,860 incidents totaling 200,778.03 man-hours (m/hrs)**
- **Top 11 incidents (#incidents/man-hours)**
  - **IED Incident – 3,526/56,108 man-hours**
  - **Pick-up and/or Disposal (UXO) – 1,550/25,542 man-hours**
  - **Post Blast Analysis – 1,491/21,821 man-hours**
  - **Area Clearance – 410/52,121 man-hours**
  - **Other EOD Incidents – 254/20,130 man-hours**
  - **EOD Evaluation – 210/1,983 man-hours**
  - **Route Clearance – 145/18,807 man-hours**
  - **Enemy Attack - 131/1,235 man-hours**
  - **Disposal of Munitions – 117/2,625 man-hours**

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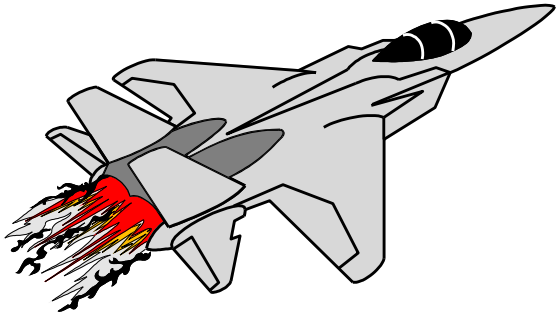
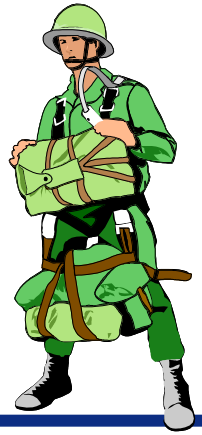
Operations

Joint Service Capability

(AFJI 32-3002)

- **Closest Unit Response**
- **US Army**
- **US Navy**
- **US Air Force**
- **US Marine Corp**





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Commanders' Involvement

Off-Base Requirements

- Commanders' Permission
  - Legal Representative
- DoD Munitions Accidents
  - Closest Unit Initial Response Required
  - Owning Service Responsible
  - 4-hour Response to Transportation Accident
- Non-DoD or Federal Request for Support
  - Closest Unit
    - Interest of Public Safety
    - Required for Military Munitions (Cradle to Grave)

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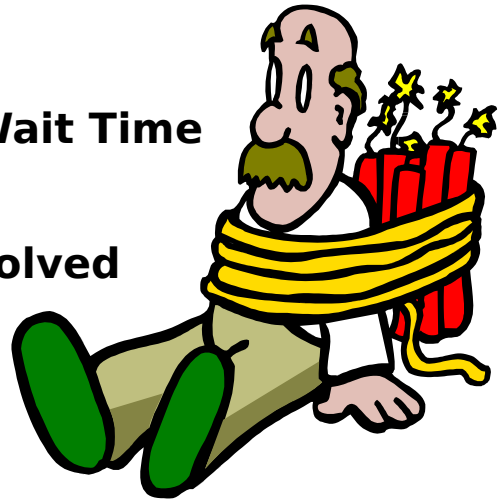
Incident Categories

- **Used to prioritize multiple incidents and risk factor decisions. Which will you do first?**
  - **Category A - Grave or Catastrophic Threat**
    - **Immediate Response: No Wait Time**
  - **Category B - Indirect Threat**
    - **Immediate Response: Observe Safe Wait Time**
  - **Category C - Minor Threat**
    - **Respond After Higher Categories Resolved**
  - **Category D - No Present Threat**
    - **Respond When Time Is Available**



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Typical Response Guidelines

- Command Post notifies EOD Flight
  - Flight prepares for response: Entry Control Point (ECP) established, safe route identified
  - Team departs flight, arrives at ECP
  - Team Chief meets with OSC, gets response update
    - Team prepares equipment: robot, X-ray, bomb suit, hand tools, explosive cartridge check-out, and develops initial plan of attack.
  - Team clears plan of attack with OSC. This is what the team plans to do at the incident site
  - Team briefs results of first entry. Plan of attack may change when more information is gained
  - Team recommends future actions and consequences of those actions to the OSC. OSC approves course of action

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Types of Incidents
Aircraft Recovery

- Aircraft Recovery
  - EOD on Advance Team
  - Ensure Safety of Investigation Team
  - Recover/Destroy Munitions and Classified Components
  - Document Actions Taken

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Types of Incidents
Munitions Incidents

- Munitions Incidents
  - In-Flight Emergencies
  - Munitions Storage Area
  - Disposal of Unserviceable Munitions
  - Destruction of Captured Munitions
    - AEF (One Location) Destroyed 128,355 Ordnance Items
    - Totaled 6,746,772 Lbs of Ordnance
  - Military Munitions/Explosives Found in Community

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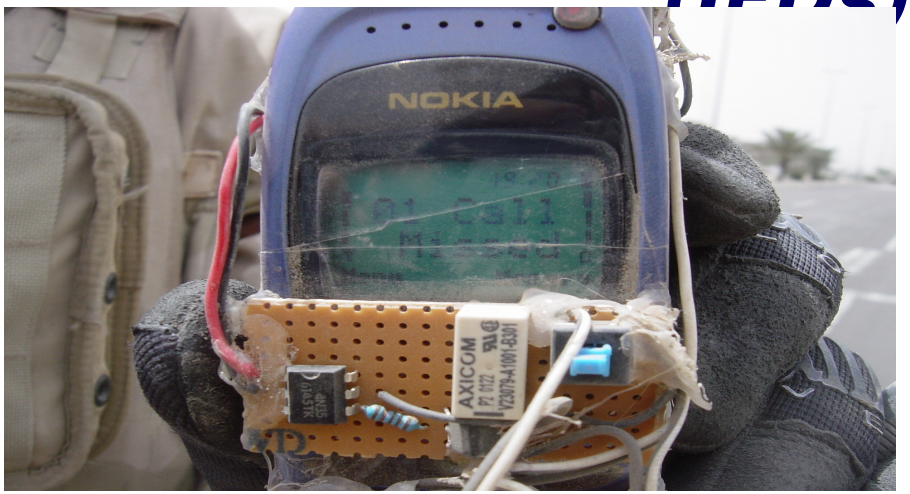
Types of Incidents
Improvised Explosive Devices (IEDs)

- Ingenuity of Builder
- Close-Hold TTP
- Target First Responders
- Secondary Devices



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IED Defeat Technology

- Family of EOD Robots
- "Bang Stick"
- Thermal Imagers
- NVGs/Bomb Suits
- CREW (ground ECM)

5. Low Band Antenna
2. MID BAND ANTENNA
3. Mid Band Antenna Ground Plane
10. Nylon Rope
1. Warlock Red System
Duct Tape
6. Low Band Antenna Cable
Loop Strap
7. Power Cable 24 Volt System
8. Power Cable 12 Volt System
4. Mid Band Antenna Cable
11. Hardware kit includes:
Duct tape (item 9 above)
Nylon Rope (item 10 above)
Utility Bracket, Nuts, Bolts and Washers

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Types of Incidents
Nuclear and Hazmat

- Broken Arrow
  - Indirect/Direct Supporting Units
  - Emergency Actions
  - Hazards: Radiological, Toxic, Explosive
  - Weapons Briefings
    - Critical Nuclear Weapons Design Information
    - Render Safe & Continuation Requirements
- HAZMAT Response (WMD)
  - Explosive Related
  - Specialist Employee B
  - Awareness Level
  - Confined Space Trained

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Pit Falls

- Weigh mission importance with preparation time
- Consider your environment
- Don’t be afraid to ask for assistance
- AOR Example (times local)
  - 0700 Drone goes down 30Km from base X
  - 0725 EOD notified, hears installation will handle with DCG
  - 0745 DCG recalled
  - 1130 USAF notified USA responded to crash site, classified components have been recovered.
  - 1200 DCG stood down

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Current Programs
All-Purpose Remote Transporter (ARTS)

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Current Programs
RONS & F6A Robotic Platforms

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Current Joint EOD MTRS

Talon is a lightweight, versatile UGV designed for missions ranging from reconnaissance to weapons delivery. TALON is designed to operate under adverse conditions and almost any terrain. It is controlled through either a two-way radio frequency or fiber optic line from a portable or wearable Operator Control Unit. Payloads include cameras, gripper manipulators, NBC sensors, UXO/countermine detection sensors and disrupters

Program: MK 2 Mod 0 Talon
Foster Miller

Users: **Joint Service**
Fielded: 0 Units
Safety Approval: Waiting on Lithium Battery approval from WSERB & NNSB

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Current Joint EOD MTRS

Produced by iRobot, the PACKBOT unmanned ground vehicle is designed for military reconnaissance, tactical law enforcement and explosives ordnance disposal. PACKBOT employs an aluminum main chassis with injection-molded tracks, polymer wheels and bogies.

Program: Mk 1 Mod 0 PACKBOT
I ROBOT

Users: **Joint Service**
Fielded: 0 Units
Safety Approval: WSERB & NNMSB
Approved for EOD use

Contact Information

Office/Agency: Det 63 Indian Head
POC: TSgt Wilson
Phone: DSN 354-6824
Email: ronald.e.wilson@jeodnet.mil

Air Force Man Transportable Robotic System (MTRS), HD-1

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HD-1 is a versatile UGV designed for missions ranging from reconnaissance to weapons delivery. HD-1 is designed to operate under adverse conditions and almost any terrain. It is controlled through either a two-way radio frequency or fiber optic line from a portable or wearable Operator Control Unit. Payloads include cameras, gripper manipulators, NBC sensors, digital video, UXO/countermine detection sensors and disrupters

Users: USAF

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Current Programs
Bombot

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Current Programs
UA-HMMWV

Integrity - Service - Excellence

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Current Programs
6X6 Cougar

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Current Programs
X-Ray Systems

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Current Programs
Small Caliber Disrupter/Bomb Suits

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Current Programs
RE-70 Dearmer

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Current Programs
M82A1M Barrett (M107)

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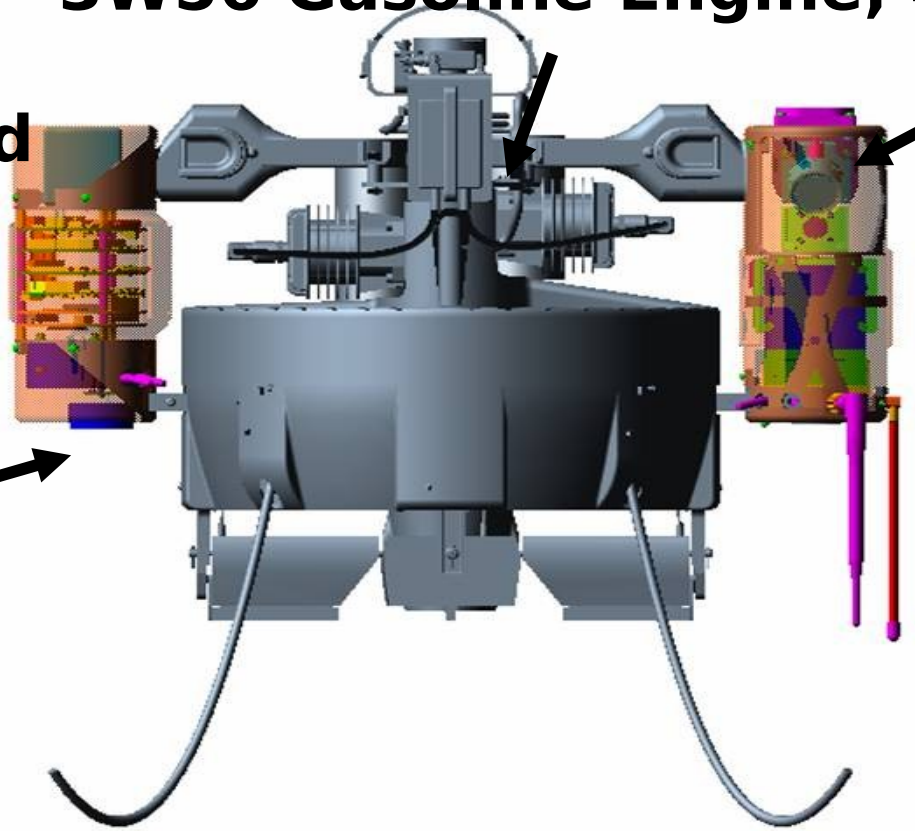
MAV – Front View, EO Configuration

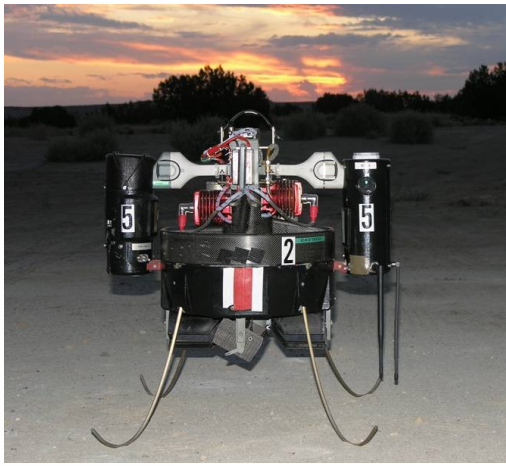
3W56 Gasoline Engine, 4 hp @ 7300 rp

Avionics Pod

Payload Pod



13” OD Duct
11.5” ID



Current Vehicle Weight: 15.5 lbs dry, 17 lbs wet

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Communications

NIPR

SIPR

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Mini-Demolition Remote Firing Device (DRFD)

Firing Output Power
300 mJoules at 50 volts
Frequency Range
UHF/FM. 385-390 MHz or 405-410 MHz
Size
Transmitter: 128(W) x 40 (D) x 165(H)
Receiver: 85(W) x 120(D) x 48(H)
Weight
Transmitter: 1 Kg
Receiver: 600 grams
Power Source
Transmitter: AA alkaline or lithium batteries
Receiver: D alkaline or lithium battery
Environmental Temperature Range
Standard: -33oC to 60oC
NATO Stock Numbers
Transmitter: NSN 5820-98-205-6421
Receiver: NSN 5820-98-205-1081

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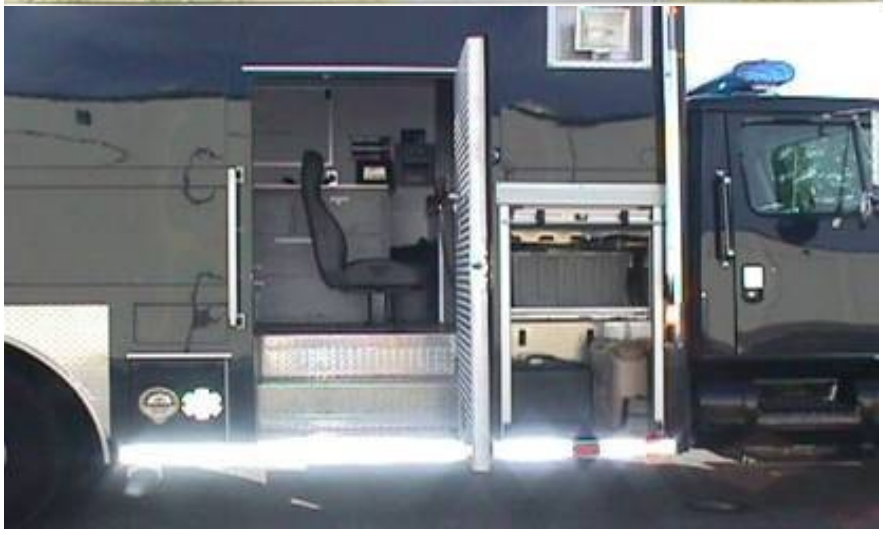
Current Programs
BSERV



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Questions